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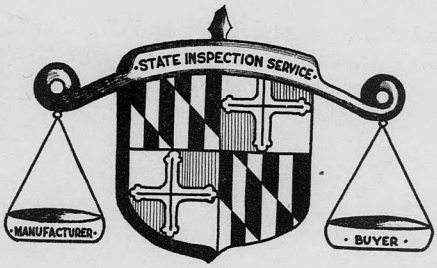
Commercial Fertilizers

Intelligent and discriminating fertilizer buying by Maryland farmers will save them thousands of dollars. It is possible to reduce outlay by purchasing low analysis fertilizers, but, if the desired crop results are not obtained, the fallacy of such economy becomes quickly apparent.



STATE FERTILIZER DEPARTMENT

Controlled by

UNIVERSITY OF MARYLAND

COLLEGE PARK, MD.

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COMMERCIAL FERTILIZERS

JULY 1, 1925—JANUARY 1, 1926

Compiled and edited under the supervision and direction of Neil E. Gordon,
State Chemist, and L. E. Bopst, in charge of Fertilizer,
Feed and Lime Departments.

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The inspection, analysis and control work of the fertilizer, feed and lime trade is carried on by the State Department, but the State Department is so related to the chemical work of the University that the other men of the Chemical Staff who are mentioned below may be called on for help in time of need; and, furthermore, it is the purpose of the majority of this Chemical Staff to be carrying on some investigations which bear directly or indirectly on the properties of lime, feed and fertilizer.

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INTRODUCTION

State Fertilizer Inspectors obtained 1,090 samples of commercial fertilizers from shipments found being offered for sale throughout the State during the year 1925.

Three hundred and fifty-one of these 1925 samples are covered by the reports in this bulletin, and represent sales made during the fall season. All of these samples were analyzed for the purpose of determining the correctness of the guarantees found on the sacks or attached cards. Results of these analyses have been reported to the respective manufacturers, dealers and whenever possible to the buyer.

The samples reported in this bulletin may be included in five general classes, which together with the number of samples in each, were as follows:

Two hundred and six complete fertilizers supplying ammonia, available phosphoric acid and water soluble potash; 63 acid phosphate and potash fertilizers supplying available phosphoric acid and water soluble potash; 45 acidulated phosphate fertilizers, supplying available phosphoric acid; 14 ground bone fertilizers, guaranteed for ammonia and total phosphoric acid; and 23 miscellaneous fertilizers, including sulphate of ammonia, tankage, kainit, muriate of potash, etc.

The results secured showed that 133, or 38 per cent. of the total samples, were deficient in one or more forms of plant food. On the other hand only 32, or less than 10 per cent, were deficient in value guaranteed. The majority of the samples secured, however, exceeded their guarantees, many by substantial "overages." The value of this "overage" on samples analyzed amounted to $741.85. From this information it may be safely estimated that fertilizer manufacturers are annually delivering to Maryland farmers thousands of dollars worth of plant food in excess of their contracts.

The report of the fall season constitutes an excellent record of inspection and clearly indicates that the majority of fertilizer manufacturers are fulfilling the obligations of their contracts in every respect as is shown in the following table:

SUMMARY OF FERTILIZER INSPECTION FROM JULY 1, 1925, TO JANUARY 1, 1926

NAME OF MANUFACTURER	No. of Samples reported.	No. Equal to Guarantee in every particular.	No. Equal in Value to Guarantee.	No. Within 10% of Value of Guarantee.	No. Exceeding 10% of Value of Guarantee.	No. of Brands sold not licensed at time of sale.
Agricultural Corporation of Maryland	3	2	2	1	0	1
American Agri. Chemical Company	33	24	31	1	1	1
American Fertilizer Company	5	4	5	0	0	1
Armour Fertilizer Works	20	15	17	3	0	1
Associated Chemical Company	2	1	1	1	0	1
Baltimore Fertilizer Company	6	3	6	0	0	--
Baugh and Sons Company	25	18	23	2	0	1
Blake Fertilizer Company	1	1	1	0	0	2
Herbert Bryant's Son	5	3	3	2	0	2
Central Chemical Co.	10	3	6	4	0	1
Devilbliss Brothers	3	2	3	0	0	--
Dorchester Fert. and Lime Co.	6	5	6	0	0	2
Edelen Brothers	5	2	5	0	0	--
Farmers Fert. and Feed Co.	5	5	4	1	0	--
Farmers and Planters Co.	2	0	1	1	0	--
Frederick Mehring Fertilizer Works	3	1	3	0	0	--
Griffith and Boyd Company	7	3	5	2	0	1
Hampstead Fertilizer Company	2	1	2	0	0	--
Ed. T. Clark	2	0	2	0	0	1
Hubbard Fertilizer Company	9	7	8	1	0	1
Lancaster Chemical Company	1	0	1	0	0	--
Maryland Milling and Supply Co.	6	3	5	1	0	--
Maryland Tobacco Growers Association	9	4	9	0	0	--
Massey and Wilmer	4	3	3	1	0	--
Medford Fertilizer Works	3	2	3	0	0	1
Miller Fertilizer Company	5	3	4	1	0	--
G. Ober and Sons Company	18	11	18	0	0	--
Oyler and Spangler	1	1	1	0	0	--
Patuxent Guano Company	3	1	2	1	0	--
Peerless Fertilizer Company	8	6	7	0	0	3
Piedmont-Mt. Airy Guano Co.	22	8	17	4	1	7
Plant Products Company	3	0	0	2	1	--
Ramsburg Fertilizer Company	6	2	5	1	0	--
Rasin Monumental Company	1	0	1	0	0	--
F. S. Royster Guano Company	10	8	7	2	1	1
Scott Fertilizer Company	7	6	6	1	0	--
R. H. Slingluff Fertilizer Company	2	0	1	1	0	--
Superior Guano Company	13	7	11	2	0	4
Swift and Company	21	13	20	1	0	--
Thomas and Company	2	0	1	1	0	1
Wm. B. Tilghman Company	9	7	8	1	0	1
F. W. Tunnell and Company	3	2	3	0	0	1
U. S. Guano Company	4	3	3	0	1	1
Valliant Fertilizer Company	4	3	4	0	0	2
E. S. Valliant and Son	8	7	8	0	0	--
W. H. Valliant and Bro.	2	1	2	0	0	1
Virginia Carolina Chemical Co.	11	7	10	1	0	1
Westminster Fertilizer Company	2	1	2	0	0	--
Worcester Fertilizer Company	5	4	5	0	0	2
R. B. Wyand	3	3	3	0	0	--
Independent Manufacturing Company	1	1	1	--	--	1
Totals	351	217	305	40	5	43

Reduction in Number of Brands Licensed and Elimination of Misleading Nomenclature

In control Series Bulletin 115, issued during January of this year, some space was devoted to the discussion of misleading nomenclature and wasteful multiplicity of brands. Certain facts, subsequently noted, will, however, be of interest to fertilizer buyers and to the trade as well.

The total offering of certain firms listed in the January bulletin, as compared with their registrations for 1925, is less by 88 brands. This result is evidence of a serious effort on the part of fertilizer manufacturers to bring their business practices into closer accord with the recommendations of the experiment stations and of their own trade journals.

It is to be sincerely hoped that fertilizer purchasers will cooperate with the trade in the work of elimination by confining their demands to the brands that are being offered for sale. According to experiment station officials, it is possible for farmers to satisfy their crop and soil requirements with not over twelve different kinds of mixed fertilizers and the various fertilizer materials. Practically all of these brands and materials are included in the registrations of the various companies. Such cooperation between the industry and the consumer will eventually react to the mutual benefit of both.

It has also been noted that certain manufacturers have eliminated the use of misleading brand names in the registrations on file for the year 1926. In order to do this, they have adopted the practice of selling their goods under a characteristic trade name, and have refrained from guaranteeing their goods as suitable for any specific crop, leaving the purchaser the option of buying the goods on its own merits.

Gratuitous Analyses

During the fall season of 1925 many samples of fertilizer were examined which had been sent in by residents of the State.

Section 9, of the Law (Act of 1922), provides that any purchaser of fertilizer may have his goods analyzed gratuitously by submitting a sample to this department, such service being contingent upon the following of certain directions in sampling. The laboratories of the department endeavor to so organize their work that reports of the analyses of such samples shall be in the

hands of senders not more than ten days after the receipt of the sample at our office. The object of the purchaser is to satisfy himself as to whether he has obtained goods of the grade represented. He may also obtain evidence upon which to base a claim for shortage should the materials not meet their guarantees. Although many of these samples undoubtedly represent the goods in question, the results of the examinations are not published because the department cannot definitely certify to the manner of sampling. It is evident that if the sampling has been improperly performed, the inclusion of such results in our bulletin would be unfair and misleading. Frequently, moreover, residents do not furnish sufficient information as to the source, brand, guarantees, etc., to make the publication of the results obtained of public benefit.

Residents of the State are urged to follow the instructions of the law when forwarding samples, as this department can assume no responsibility for unofficial samples and can vouch only for the accuracy of the analytical results obtained on the materials as submitted. Since a representative sample is as essential as an analysis in judging the quality of a consignment of fertilizer, it follows that a satisfactory adjustment will seldom be obtained on our analysis of an unofficial sample. It should be borne in mind that this department cannot perform for any individual or group work in such volume or with such frequency as to exercise a systematic check-up over current purchases. This clearly encroaches upon the territory of the commercial laboratory.

VALUES FOR FALL OF 1925

Since the analysis in our laboratory gives the percentage, or pounds per hundred, it is only necessary to multiply the price per pounds by twenty in order to get the value of one per cent. for one ton of fertilizer. This is designated in the following table as the value per unit (a unit is one per cent. of one ton, or twenty pounds):

TABLE FOR CALCULATING FERTILIZER VALUES

	Per Unit
(1) Nitrogen calculated as ammonia	$4.50
(2) Available phosphoric acid:	
(a) In mixed fertilizers or in dissolved rock	.70
(b) In tankage or ground bone	.60
(3) Insoluble phosphoric acid	.15
(4) Potash	.85

VALUES

In order to compare values of fertilizers multiply the percentage of each plant food in the fertilizer by the respective value per unit given in the table and add the results together: For example, in the case of a complete fertilizer with an analysis of 4-8-5, we would have 4 per cent. of ammonia, 8 per cent. of phosphoric acid and 5 per cent. of potash. Since, by the above table, ammonia is worth $4.50 per unit, available phosphoric acid, 70c., and potash, 85c., we have $27.85.

4 x $4.50	$18.00 value of ammonia in one ton.
8 x 0.70	5.60 value of phosphoric acid in one ton.
5 x 0.85	4.25 value of potash in one ton.
	$27.85 value of fertilizer in one ton.

EXPLANATION OF VALUES

These values are not intended in any way to indicate the retail selling price of mixed fertilizers, as they do not include expenses incidental to manufacture and distribution, together with a fair return on money invested. They are offered as a means of comparing the value of the plant food found by our chemists and that guaranteed by the manufacturer.

TABLES

The following pages contain a detailed report of the results obtained in the inspection of fertilizers from July 1, 1925, to January 1, 1926:

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Agricultural Corp. of Maryland, Baltimore, Md.												$12.29	$11.20
Farm Bureau Phosphate, 16%	Baltimore					.45		17.45	16.00				
Farm Bureau, 2-12-4	Baltimore	1.47	1.15	1.81	2.00	.90		12.60	12.00	4.00	4.00	20.51	20.80
Farm Bureau, 0-12-5	Baltimore					.60		12.25	12.00	5.20	5.00	13.09	12.65
American Agri. Chemical Co., New York, N. Y.													
Acid Phosphate	Baltimore					1.10		16.70	16.00			11.86	11.20
Fine Ground Bone	Baltimore			3.07	3.00			*26.85	*22.88			29.93	27.23
Great Grain Grower	Baltimore					.70		8.30	8.00	5.20	5.00	10.34	9.85
Great Grain Grower	Baltimore					1.10		8.20	8.00	5.00	5.00	10.16	9.85
Matchless Potash Manure	Baltimore	1.67	1.03	2.01	2.00	1.45		7.95	8.00	2.16	2.00	16.68	16.30
Peerless Veg. and Grain Grower	Baltimore	1.66	1.03	2.00	2.00	1.20		8.15	8.00	5.00	5.00	19.14	18.85
Peerless Veg. and Grain Grower	Mt. Airy	1.60	1.03	1.91	2.00	1.20		8.00	8.00	5.08	5.00	18.70	18.85
Pure Raw Bone	Baltimore			4.68	4.50			*22.00	*21.51			34.26	33.16
Victory Phosphate and Potash	Baltimore					1.60		12.20	12.00	5.00	5.00	13.03	12.65
Victory Phosphate and Potash	Baltimore					.90		12.30	12.00	5.04	5.00	13.03	12.65
Victory Phosphate and Potash	Ellicott City					1.15		12.35	12.00	5.02	5.00	13.09	12.65
Wheat Special	Baltimore	1.83	1.03	2.00	2.00	1.90		12.15	12.00	4.28	4.00	21.44	20.80
Wheat Special	Baltimore	1.80	1.03	2.00	2.00	1.80		12.00	12.00	4.24	4.00	21.27	20.80
Canton Chemical Baker's Spec. Wheat Corn and Grass Mixture	Baltimore	.77	.43	1.01	1.00	1.15		10.15	9.00	2.00	2.00	13.53	12.50
Detrick's Kangaroo Komplete Kompound	Baltimore	1.70	1.03	2.01	2.00	1.45		8.25	8.00	3.04	3.00	17.63	17.15
Lazaretto Complete Compound	Baltimore	.72	.43	.99	1.00	1.90		8.20	8.00	4.32	4.00	14.16	13.50
Lazaretto Complete Compound	Baltimore	.68	.43	.99	1.00	1.65		7.90	8.00	4.32	4.00	13.91	13.50
Lazaretto Farmers Choice Brand	Baltimore	.73	.43	.99	1.00	1.40		8.00	8.00	2.04	2.00	12.00	11.80

Lazaretto Farmers Choice Brand	Baltimore	.75	.43	1.04	1.00	1.25		8.15	8.00	2.04	2.00	12.31	11.80
Lazaretto Farmers Choice Brand	Baltimore	.86	.43	1.13	1.00	1.30		8.30	8.00	2.08	2.00	12.87	11.80
Lazaretto Farmers Choice Brand	Baltimore	.74	.43	1.01	1.00	1.30		8.50	8.00	2.04	2.00	12.43	11.80
Lazaretto Red Dog Guano	Baltimore	1.91	1.03	2.08	2.00	1.55		8.05	8.00	4.00	4.00	18.63	18.00
Lister's G. Brand	Baltimore	.73	.43	1.04	1.00	1.60		8.40	8.00	3.74	4.00	13.98	13.50
Lister's Harvest Queen Phosphate	Baltimore	.77	.43	1.01	1.00	1.30		9.10	9.00	3.36	3.00	13.98	13.35
Lister's Harvest Queen Phosphate	Baltimore	.74	.43	1.01	1.00	1.10		9.20	9.00	3.00	3.00	13.71	13.35
Lister's Success Fertilizer	Baltimore	1.63	1.03	2.01	2.00	1.60		8.40	8.00	2.16	2.00	17.01	16.30
Patapsco Acid Phosphate, H. G.	Baltimore					1.00		16.10	16.00			11.42	11.20
Patapsco Big Chief Br. with Potash	Baltimore	.84	.43	1.01	1.00	1.25		9.25	9.00	3.32	3.00	14.04	13.35
Patapsco Phospho Potash	Baltimore					.78		11.77	12.00	4.20	5.00	11.93	12.65
Woolridge's Old Sledge Phosphate	Baltimore					.90		13.05	12.00	5.24	5.00	13.73	12.65
Zell's Hustler Phosphate	Baltimore	.80	.43	1.09	1.00	1.10		9.20	9.00	2.84	3.00	13.94	13.35
Zell's Hustler Phosphate	Baltimore	.70	.43	1.01	1.00	1.15		9.15	9.00	3.08	3.00	13.75	13.35
Zell's Hustler Phosphate	Mt. Airy	.68	.43	.99	1.00	1.00		9.20	9.00	3.24	3.00	13.80	13.35
American Fertilizing Co., Baltimore, Md.													
Acid Phosphate, H. G.	Baltimore					.55		15.95	16.00			11.25	11.20
Champion Grain Grower	Baltimore	.83	.49	1.00	1.00	.55		8.15	8.00	4.12	4.00	13.79	13.50
Double Extra Phos. and Potash	Baltimore					1.20		12.60	12.00	5.08	5.00	13.32	12.65
Double Special Brand	Baltimore	3.80	2.00	4.04	4.00	.65		16.85	16.00	6.00	6.00	35.18	34.30
Double Special Brand	Baltimore	3.73	2.00	3.95	4.00	.75		17.25	16.00	6.00	6.00	35.07	34.30
Armour Fertilizer Works, Baltimore, Md.													
Big Crop Acid Phosphate	Baltimore					1.35		16.05	16.00			11.44	11.20
Big Crop Acid Phosphate	Baltimore					.90		17.10	16.00			12.11	11.20
Big Crop Bone Mixture, 2-9-3	Baltimore	1.28	1.00	2.00	2.00	2.30		9.10	9.00	3.48	3.00	18.68	17.85
Big Crop, 4-8-4	Baltimore	3.05	2.00	3.70	4.00	1.35		8.15	8.00	4.00	4.00	25.96	27.00
Big Crop, 4-16-4	Baltimore	3.87	2.00	4.04	4.00	.80		16.30	16.00	4.24	4.00	33.31	32.60
Big Crop, 7-6-5	Clinton	5.11	3.50	6.51	7.00	1.15		6.35	6.00	5.00	5.00	38.17	39.95
Big Crop, 2-8-5	Baltimore	1.32	1.00	2.00	2.00	.80		8.60	8.00	5.04	5.00	19.42	18.85
Big Crop, 2-8-5	Baltimore	1.28	1.00	2.00	2.00	.95		8.15	8.00	4.90	5.00	19.02	18.85
Big Crop, 2-16-8	Baltimore	1.96	1.00	2.03	2.00	.70		16.60	16.00	8.68	8.00	28.25	27.00
Big Crop, 2-16-8	Baltimore	1.89	1.00	2.01	2.00	.75		16.25	16.00	8.12	8.00	27.44	27.00
Big Crop, 0-12-5	Baltimore					.60		12.50	12.00	5.12	5.00	13.19	12.65
Big Crop, 0-12-5	Baltimore					1.10		12.50	12.00	5.00	5.00	13.17	12.65
Farmers' Choice, 1-9-3	Baltimore	.65	.50	1.11	1.00	1.10		8.90	9.00	3.28	3.00	14.19	13.35
Farmers' Choice, 1-9-3	Baltimore	.71	.50	1.14	1.00	.85		9.15	9.00	3.16	3.00	14.36	13.35
Farmers' Choice, 1-9-3	Baltimore	.65	.50	1.09	1.00	1.05		9.25	9.00	3.20	3.00	14.27	13.35
Grain Grower, 2-8-2	Baltimore	1.25	1.00	2.00	2.00	.60		8.70	8.00	2.28	2.00	17.12	16.30

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Armour Fertilizer Works, Baltimore, Md. (Cont.)													
Lime Phosphate, 0-13-0	Baltimore	-----	-----	-----	-----	2.63	------	12.62	13.00	-----	-----	$ 9.22	$ 9.10
Lime Phosphate, 0-13-0	Baltimore	-----	-----	-----	-----	1.30	------	13.70	13.00	-----	-----	9.79	9.10
Lime Phosphate, 0-13-0	Baltimore	-----	-----	-----	-----	1.50	------	13.70	13.00	-----	-----	9.82	9.10
Jarecki's, 0-12-5	Baltimore	-----	-----	-----	-----	.50	------	12.60	12.00	5.36	5.00	13.46	12.65
Associated Chemical Co., Baltimore, Md.													
Fine Bone Meal	Baltimore	-----	-----	3.74	3.00	------	------	*23.20	*23.00	-----	-----	30.75	27.30
Baltimore Fertilizer Company, Baltimore, Md.													
Honest Acid Phosphate, 0-16-0	Baltimore	-----	-----	-----	-----	1.30	------	16.70	16.00	-----	-----	11.89	11.20
Honest, 1-9-3	Hampstead	.70	.60	1.16	1.00	.80	------	9.50	9.00	4.04	3.00	15.42	13.35
Honest, 1-9-3	Glyndon	.48	.60	.99	1.00	1.90	------	9.50	9.00	3.36	3.00	14.26	13.35
Honest, 2-8-4	Glyndon	1.16	-----	1.77	2.00	1.90	------	8.70	8.00	4.36	4.00	18.06	18.00
Old Honesty, ½-8-2	Baltimore	-----	-----	.72	.50	1.05	------	8.30	8.00	1.20	2.00	10.23	9.55
Old Honesty, ½-8-2	Baltimore	-----	-----	.53	.50	.85	------	8.55	8.00	2.00	2.00	10.21	9.55
Baugh and Sons' Company, Baltimore, Md.													
Complete Animal Base Fertilizer	Baltimore	1.64	.91	2.00	2.00	.75	------	8.05	8.00	5.32	5.00	19.27	18.85
Complete Animal Base Fertilizer	Baltimore	1.65	.91	2.00	2.00	.65	------	8.25	8.00	4.78	5.00	18.94	18.85
Double Eagle Phosphate	Baltimore	1.39	.91	1.77	2.00	1.25	------	10.05	10.00	4.24	4.00	18.80	19.40
Excelsior Guano	Ellicoot City	.81	.60	1.08	1.00	.70	------	9.85	10.00	4.16	4.00	15.41	14.90
Fish, Bone and Potash	Upper Marlboro	3.36	2.43	3.80	4.00	.85	------	8.25	8.00	4.74	4.00	27.04	27.00
General Crop Grower	Ellicott City	.74	.60	1.13	1.00	.65	------	12.55	12.00	1.36	1.00	15.14	13.75
Half and Half Mixture with Potash	Silver Hill	.45	-----	1.34	1.50	4.90	------	11.90	10.00	5.04	5.00	19.38	18.00
Lime and Phosphate	Baltimore	-----	-----	-----	-----	1.70	------	13.30	13.00	-----	-----	9.57	9.10
Lime and Phosphate	Baltimore	-----	-----	-----	-----	2.20	------	13.10	13.00	-----	-----	9.50	9.10
Lime and Phosphate	Baltimore	-----	-----	-----	-----	2.00	------	13.10	13.00	-----	-----	9.47	9.10
Old Stand By	Ellicott City	1.67	.91	2.05	2.00	1.25	------	13.35	13.00	2.32	2.00	20.05	19.10

Lime and Phosphate	Baltimore					2.00		13.10	13.00			9.47	9.10
Old Stand By	Ellicott City	1.67	.91	2.05	2.00	1.35		12.35	12.00	2.32	2.00	20.05	19.10
Pure Bone and Muriate of Potash	Baltimore	.61		3.63	2.50			*20.40	*20.00	4.02	5.00	32.00	27.50
Raw Bone Meal	Baltimore			4.54	4.50			*21.20	*21.50			33.15	33.15
Raw Bone Meal	Baltimore			4.69	4.50			*21.30	*21.50			33.89	33.15
Raw Bone Meal	Ellicott City			4.56	4.50			*21.60	*21.50			33.48	33.15
Raw Bone Meal	Silver Hill			4.59	4.50			*21.80	*21.50			33.74	33.15
12 and 5 Phos. and Potash Mixture	Baltimore					1.10		12.30	12.00	5.04	5.00	13.06	12.65
12 and 5 Phos. and Potash Mixture	Baltimore					.85		12.15	12.00	5.08	5.00	12.96	12.65
12 and 5 Phos. and Potash Mixture	Baltimore					.90		12.00	12.00	5.08	5.00	12.86	12.65
12 and 5 Phos. and Potash Mixture	Baltimore					.80		12.00	12.00	5.28	5.00	13.01	12.65
12 and 5 Phos. and Potash Mixture	Baltimore					.80		12.00	12.00	5.76	5.00	13.42	12.65
12 and 5 Phos. and Potash Mixture	Ellicott City					1.50		12.20	12.00	5.00	5.00	13.02	12.65
Wheat Fert. for Wheat and Grass	Ellicott City	1.62	.91	2.00	2.00	.85		9.05	9.00	2.24	2.00	17.37	17.00
Wheat Fert. for Wheat and Grass	Baltimore	1.69	.91	2.10	2.00	.70		9.00	9.00	2.28	2.00	17.80	17.00
Wheat Fert. for Wheat and Grass	Baltimore	1.69	.91	2.03	2.00	.75		9.65	9.00	2.12	2.00	17.81	17.00
Blake Fertilizer Company, Wilmington, Del.													
Acid Phosphate, H. G.	Baltimore					.80		16.10	16.00			11.39	11.20
Herbert Bryant's Son, Alexandria, Va.													
Acid Phosphate, H. G.	Poolesville					.40		17.00	16.00			11.96	11.20
Beef, Bone and Potash	Gaithersburg	.65	.31	1.37	1.25	1.70		9.10	9.00	2.68	2.00	15.08	13.63
High Grade Fish and Potash	Gaithersburg	1.59	.60	2.17	2.00	1.65		8.45	8.00	3.00	3.00	18.49	17.15
High Grade Tankage	Poolesville			9.59	10.00								
Muriate of Potash	Poolesville									51.10	50.00		
Central Chemical Company, Hagerstown, Md.													
Gro-All Crown Jewel	Frederick	.56		.99	1.00	.60		9.10	9.00	3.28	3.00	13.71	13.35
Gro-All Dissolved Phosphate	Frederick					.50		16.60	16.00			11.70	11.20
Gro-All Excelsior	White Hall	1.58	.60	2.01	2.00	1.60		8.00	8.00	5.16	5.00	19.28	18.85
Gro-All Grain and Grass Grower	Hagerstown	1.45	.60	2.00	2.00	.80		12.00	12.00	2.08	2.00	19.29	19.10
Gro-All Potash Special	Frederick					.60		12.00	12.00	5.24	5.00	12.94	12.65
Gro-All Special Formula	Hagerstown	.86	.60	1.41	1.50	.90		11.90	12.00	4.56	5.00	18.70	19.40
Gro-All Super-Fish	Frederick	.89	.60	1.71	2.00	1.20		12.00	12.00	6.28	6.00	21.62	22.50
Gro-All Super-Fish	Dickerson	.76	.60	1.61	2.00	1.15		12.15	12.00	6.32	6.00	21.30	22.50
Gro-All Super-Fish	Dickerson		.60	1.62	2.00	1.10		12.10	12.00	6.20	6.00	21.20	22.50
Gro-All Valley Mixture	Hagerstown	1.32	.60	1.85	2.00	1.35		8.95	8.00	2.28	2.00	16.74	16.30

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Edward T. Clark, Ellicott City, Md.													
Mixture "C"	Ellicott City	.69	1.09	2.64	2.25	5.70	------	9.05	10.00	4.00	4.00	$22.48	$20.53
Mixture "D"	Ellicott City	1.09	.50	2.20	2.00	1.70	------	9.00	9.00	2.42	2.00	18.52	17.00
Devilbiss Bros., New Windsor, Md.													
Acid Phosphate	New Windsor	-----	-----	-----	-----	.30	------	17.00	16.00	-----	-----	11.95	11.20
Butcher House Phosphate	New Windsor	.65	.30	1.08	1.00	.50	------	10.40	10.00	5.80	5.00	17.15	15.90
Wheat Grower	New Windsor	.53	.30	.99	1.00	.50	------	10.40	9.00	3.72	3.00	14.98	13.35
Dorchester Fert. and Lime Co., Cambridge, Md.													
Acid Phosphate, H. G., 16%	Baltimore	-----	-----	-----	-----	.20	------	16.90	16.00	-----	-----	11.86	11.20
Acid Phosphate, H. G., 16%	Cambridge	-----	-----	-----	-----	.40	------	17.70	16.00	-----	-----	12.45	11.20
Old Dorset, 1-8-4	Cambridge	.72	.50	1.13	1.00	.70	------	9.80	8.00	4.32	4.00	15.73	13.50
Old Glory, 0-12-6	Cambridge	-----	-----	-----	-----	.50	------	12.90	12.00	6.36	6.00	14.52	13.50
Our Special, 2-8-5	Cambridge	1.19	1.15	1.87	2.00	1.35	------	9.70	8.00	5.76	5.00	20.31	18.85
Phosphate and Potash, 0-12-5	Cambridge	-----	-----	-----	-----	.35	------	12.95	12.00	6.02	5.00	14.24	12.65
Edelen Brothers, Baltimore, Md.													
Wheat and Grain Mixture	Baltimore	.58	.60	1.01	1.00	.75	------	9.15	9.00	3.04	3.00	13.65	13.35
Wheat and Grain Mixture	Baltimore	.73	.60	.99	1.00	1.00	------	10.00	9.00	3.28	3.00	14.40	13.35
Wheat and Grain Mixture	Baltimore	.71	.60	1.09	1.00	.60	------	9.40	9.00	3.08	3.00	14.20	13.35
Wheat and Grain Mixture	Baltimore	.51	.60	.99	1.00	.85	------	9.15	9.00	3.00	3.00	13.55	13.35
Wheat and Grain Mixture	Baltimore	.60	.60	.99	1.00	.55	------	9.05	9.00	3.00	3.00	13.43	13.35
Farmers' Fer. and Feed Co., Westminster, Md.													
Acid Phosphate	Westminster	-----	-----	-----	-----	1.00	------	18.05	16.00	-----	-----	12.79	11.20
Farmers' Favorite Phosphate	Westminster	.63	.60	1.02	1.00	1.25	------	10.75	10.00	5.36	5.00	16.87	15.75
Kainit	Westminster	-----	-----	-----	-----	-----	------	-----	-----	13.92	12.40	-----	-----
Potato Grower	Westminster	.47	1.20	1.49	2.00	1.50	------	8.60	8.00	5.62	5.00	17.74	18.85
XX Phosphate	Westminster	.67	-----	1.06	1.00	1.20	------	9.30	9.00	3.20	3.00	14.18	13.35
Farmers' and Planters' Co., Salisbury, Md.													
General Crop Grower	Salisbury	.34		.82	1.00	3.65		8.80	10.00	3.36	3.00	13.41	13.80

Kainit	Westminster	.47	1.20	1.49	2.00	1.50		8.60	8.00	5.62	5.00	17.74	13.35
Potato Grower	Westminster	.67		1.06	1.00	1.20		9.30	9.00	3.20	3.00	14.18	13.35
XX Phosphate													
Farmers' and Planters' Co., Salisbury, Md.													
General Crop Grower	Salisbury	.34		.82	1.00	3.65		8.80	10.00	2.36	2.00	12.41	13.20
Special Fish Mixture	Salisbury	1.35	1.52	2.00	2.00	3.65		7.55	8.00	5.24	5.00	19.29	18.85
Frederick Mehring Fert. Wks., Inc., Keymar, Md.													
Big Four	Keymar	.28	.60	.79	1.00	.60		10.10	9.00	4.16	3.00	14.26	13.35
Big Four	Libertytown	.40	.60	1.01	1.00	.95		9.65	9.00	3.98	3.00	14.83	13.35
Mammoth Truck Grower	Keymar	.74		1.35	2.00	.55		9.45	8.00	4.80	5.00	16.86	18.85
Griffith and Boyd Co., Baltimore, Md.													
Acid Phosphate, H. G.	Baltimore					.65		17.55	16.00			12.39	11.20
Acid Phosphate, H. G.	Baltimore					.35		18.25	16.00			12.83	11.20
Farmers' Queen	Baltimore	.72	.24	1.16	1.00	1.88		8.42	9.00	4.06	3.00	14.84	13.35
Fish, Blood and Potash	Baltimore	1.50	.38	2.73	1.75	1.25		7.55	7.00	2.36	2.00	19.78	14.48
6% Tankage	Baltimore			4.55	6.00								
6% Tankage	Baltimore			5.75	6.00								
XX Potash Manure	Baltimore					.75		10.45	10.00	5.86	5.00	12.41	11.25
Hampstead Fertilizer Co., Hampstead, Md.													
2-8-5	Hampstead	1.10		1.83	2.00	1.75		8.15	8.00	5.80	5.00	19.14	18.85
2-8-4	Hampstead	1.24		2.01	2.00	2.25		8.35	8.00	4.32	4.00	18.91	18.00
Hubbard Fertilizer Company, Baltimore, Md.													
Acid Phosphate	Baltimore					.95		16.25	16.00			11.52	11.20
Acid Phosphate	Baltimore					1.45		16.35	16.00			11.67	11.20
Acid Phosphate	Baltimore					1.65		16.15	16.00			11.56	11.20
Alkaline, 12-5	Baltimore					1.20		12.00	12.00	5.28	5.00	13.07	12.65
Alkaline, 12-5	Baltimore					.70		12.00	12.00	5.36	5.00	13.07	12.65
Farmers' I X L	Baltimore	1.76		2.27	2.00	1.15		8.15	8.00	2.04	2.00	17.83	16.30
Kainit	Baltimore									12.16	12.40		
3-8-6 Fertilizer	Baltimore	2.55	2.00	2.96	3.00	.75		8.45	8.00	6.74	6.00	25.08	24.20
Independent Manufacturing Co., Philadelphia, Pa													
Pure Raw Bone Meal	Poolesville			4.76	4.50			*22.00	*21.50			30.04	28.75
Lancaster Chemical Co., Perryville, Md.													
Wheat Special	Perryville	1.31		1.69	2.00	.70		8.60	8.00	3.04	2.00	16.32	16.30

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Maryland Milling and Supply Co.,	**Sykesville, Md.**												
Acid Phosphate, H. G.	Sykesville					.40		17.40	16.00			$12.24	$11.20
Phosphate and Potash	Sykesville					.35		11.45	10.00	5.32	5.00	12.59	11.25
Phosphate and Potash	Sykesville					.45		12.05	12.00	5.12	5.00	12.85	12.65
1925 Special Mixture	Sykesville	.57		1.20	2.00	1.00		13.10	12.00	5.32	5.00	19.24	21.65
Truckers' Favorite	Sykesville	.72		1.57	2.00	2.25		8.75	8.00	5.48	5.00	18.20	18.85
Warfield's Special	Sykesville	.31	1.00	.87	1.00	.70		9.30	8.00	4.36	4.00	14.25	13.50
Md. Tobacco Growers' Assn., Baltimore, Md.													
Licensed by Hubbard Fertilizer Co., Baltimore, Md.													
Maryland Open Formula Fertilizer	Baltimore					.55		12.15	12.00	5.36	5.00	13.15	12.65
Maryland Open Formula Fertilizer	Baltimore					.50		12.30	12.00	5.36	5.00	13.25	12.65
Maryland Open Formula Fertilizer	Baltimore					.50		12.20	12.00	5.00	5.00	12.87	12.65
Maryland Open Formula Fertilizer	Baltimore					.65		11.95	12.00	5.68	5.00	13.30	12.65
Maryland Open Formula Fertilizer	Baltimore	1.43	1.00	2.08	2.00	2.08		11.22	12.00	2.04	2.00	19.25	19.10
Maryland Open Formula Fertilizer	Baltimore	1.57	1.00	2.12	2.00	1.45		11.80	12.00	2.12	2.00	19.82	19.10
Maryland Open Formula Fertilizer	Baltimore	1.57	1.00	2.08	2.00	1.65		12.15	12.00	2.20	2.00	19.99	19.10
Maryland Open Formula Fertilizer	Baltimore	1.57	1.00	2.05	2.00	1.65		11.80	12.00	2.24	2.00	19.64	19.10
Maryland Open Formula Fertilizer	Baltimore	1.42	1.00	2.03	2.00	1.93		11.42	12.00	2.28	2.00	19.36	19.10
Massey and Wilmer, Chestertown,	**Md.**												
Acid Phosphate	Chestertown					.35		15.90	16.00			11.18	11.20
Crop Producer	Chestertown	.68		1.14	1.00	1.00		9.40	9.00	3.04	3.00	14.44	13.35
Superphosphate, 0-12-5	Chestertown					.65		13.35	12.00	5.08	5.00	13.77	12.65
Trustworthy	Chestertown	1.32	.73	2.05	2.00	1.10		9.30	8.00	5.12	5.00	20.26	18.85
Medford Fertilizer Works, Medford	**Md.,**												
1-8-5	Medford	.34		1.01	1.00	.95		9.05	8.00	5.12	5.00	15.38	14.35

Medford Fertilizer Works, Medford Md.,													
1-8-5	Medford	.34		1.01	1.00	.95		9.05	8.00	5.12	5.00	15.38	14.35
No. 3	Medford	.39		.99	1.00	.80		9.40	9.00	5.10	4.00	15.50	14.20
2-8-5	Medford	.78		2.01	2.00	1.20		8.10	8.00	5.84	5.00	19.86	18.85
Miller Fertilizer Company, Baltimore, Md.													
Ammoniated, 2-8-2	Ellicott City	1.36	1.00	1.79	2.00	.80		8.50	8.00	2.36	2.00	16.14	16.30
Farmers' Profit, 2-10-4	Baltimore	1.69	1.00	2.12	2.00	1.13		9.77	10.00	4.00	4.00	19.95	19.40
Grain Grower, 1-8-4	Baltimore	.57		1.01	1.00	1.15		8.35	8.00	4.14	4.00	14.09	13.50
12-5	Baltimore					.50		12.40	12.00	5.36	5.00	13.32	12.65
12-5	Baltimore					.70		12.40	12.00	5.04	5.00	13.07	12.65
G. Ober and Sons' Company, Baltimore, Md.													
Acid Phosphate, H. G.	Baltimore					1.25		17.05	16.00			12.13	11.20
Acid Phosphate, H. G.	Baltimore					1.40		16.50	16.00			11.76	11.20
Acid Phosphate, H. G.	Baltimore					1.50		17.85	16.00			12.73	11.20
Bone Mixture	Baltimore	1.42	.70	2.05	2.00	4.85		9.25	9.00	5.28	5.00	20.93	19.55
Bone Mixture	Baltimore	1.85	.70	2.26	2.00	3.80		9.00	9.00	5.00	5.00	21.29	19.55
Farmers Mixture	Baltimore	.70	.42	1.25	1.25	2.70		9.00	9.00	2.12	2.00	14.14	13.63
Golden Top Wheat and Corn Gro.	Baltimore	.83	.34	1.41	1.00	1.30		9.20	9.00	3.36	3.00	15.85	13.35
Special Plant Food	Baltimore	1.28	.70	2.03	2.00	3.53		8.52	9.00	5.32	5.00	20.16	19.55
Special Plant Food	Baltimore	1.41	.70	2.18	2.00	3.40		8.50	9.00	5.24	5.00	20.72	19.55
Stag Guano	Baltimore	.74	.34	1.13	1.00	1.90		8.20	8.00	4.32	4.00	14.79	13.50
Stag Guano	Baltimore	.63	.34	1.09	1.00	1.85		8.15	8.00	4.36	4.00	14.61	13.50
Standard Potash Compound	Baltimore					2.30		12.10	12.00	6.24	6.00	14.12	13.50
Swan E Fish Guano	Baltimore	1.68	.70	2.60	2.00	5.05		8.95	9.00	3.28	3.00	21.52	17.85
Swan E Fish Guano	Baltimore	1.52	.70	2.03	2.00	2.88		8.97	9.00	3.86	3.00	19.13	17.85
Twelve and Five Potash Compound	Baltimore					3.20		11.70	12.00	5.24	5.00	13.12	12.65
Twelve and Five Potash Compound	Baltimore					2.95		11.95	12.00	5.08	5.00	13.13	12.65
Twelve and Five Potash Compound	Baltimore					3.15		12.05	12.00	5.36	5.00	13.47	12.65
Twelve and Five Potash Compound	Baltimore					3.73		11.42	12.00	5.00	5.00	12.80	12.65
Oyler and Spangler Fert. Wks., Gettysburg, Pa.													
Potash Special	Emmitsburg					.50		12.20	12.00	5.28	5.00	13.11	12.65
Patuxent Guano Company, Baltimore, Md.													
Acid Phosphate, H. G.	Baltimore					1.35		15.90	16.00			11.33	11.20
Acid Phosphate, H. G.	Baltimore					1.40		16.10	16.00			11.48	11.20
Champion Fertilizer	Baltimore	1.18		1.71	2.00	.80		8.20	8.00	5.00	5.00	17.81	18.85

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Peerless Fertilizer Company, Chestertown, Md.													
Acid Phosphate	Chestertown					.55		16.15	16.00			$11.39	$11.20
Ford's Ideal	Chestertown	.50	.48	.96	1.00	.40		8.75	9.00	4.58	3.00	14.40	13.35
Imperial Compound	Chestertown	.52	.48	1.01	1.00	.65		8.45	8.00	4.28	4.00	14.21	13.50
Kainit	Chestertown									13.36	12.00		
Merrick's Special	Chestertown			.29	.25	.65		12.85	12.00	5.00	5.00	14.66	13.78
Peerless	Chestertown	1.01	.90	1.90	2.00	.50		8.80	8.00	6.08	5.00	19.96	18.85
2-12-4 Fertilizer	Chestertown	1.55	.90	2.01	2.00	.75		12.55	12.00	4.64	4.00	21.89	20.80
Williams 12-5 Fertilizer	Chestertown					.40		15.25	12.00	5.00	5.00	14.99	12.65
Piedmont-Mt. Airy Guano Co., Baltimore, Md.													
Acid Phosphate	Baltimore					2.20		16.30	16.00			11.74	11.20
Ammoniated Fertilizer	Baltimore	.61	.32	1.04	1.00	2.60		8.95	9.00	3.00	3.00	13.89	13.35
Farmers' Favorite	Libertytown	.65	.32	1.08	1.00	2.25		8.15	8.00	4.20	4.00	14.48	13.50
Farmers' Favorite	Baltimore	.59	.32	1.02	1.00	2.05		8.05	8.00	4.12	4.00	14.04	13.50
Farmers' Favorite	Baltimore	.60	.32	.99	1.00	2.30		8.10	8.00	4.28	4.00	14.12	13.50
Farmers' Favorite	Secretary	.73	.32	1.11	1.00	2.20		8.90	8.00	4.24	4.00	15.16	13.50
Farmers' Favorite	Baltimore	.60	.32	.99	1.00	2.40		8.10	8.00	4.08	4.00	13.96	13.50
1-8-5 Fertilizer	Baltimore	.67	.32	1.01	1.00	2.50		8.40	8.00	4.71	5.00	14.81	14.35
1-8-5 Fertilizer	Sharptown	.66	.32	.97	1.00	2.20		9.30	8.00	5.10	5.00	15.46	14.35
1-8-5 Fertilizer	Baltimore	.65	.32	.94	1.00	2.30		8.30	8.00	5.20	5.00	14.81	14.35
Perfection Guano	Baltimore	.89	.67	1.32	2.00	2.60		8.00	8.00	4.12	5.00	15.43	18.85
Perfection Guano	Baltimore	1.27	.67	1.78	2.00	4.20		7.05	8.00	5.00	5.00	17.83	18.85
Perfection Guano	Baltimore	1.04	.67	1.77	2.00	3.05		7.60	8.00	5.36	5.00	18.31	18.85
Raw Bone Meal	Baltimore			4.95	4.50			*23.05	*20.50			36.11	32.55
Raw Bone Meal	Owings Mills			4.75	4.50			*24.90	*20.50			36.32	32.55
Sulphate of Ammonia	Baltimore			24.24	25.00								
Tankage, 9%	Baltimore			8.41	9.00			*13.15	*10.00			45.74	46.50

Sulphate of Ammonia	Baltimore			24.24	25.00								
Tankage, 9%	Baltimore			8.41	9.00			*13.15	*10.00			45.74	46.50
2-8-12 Fertilizer	Sharptown	1.81		2.15	2.00	2.00		8.50	8.00	11.20	12.00	25.45	24.80
2-12-2 Fertilizer	Owings Mills	1.79	.67	2.01	2.00	2.30		12.10	12.00	2.32	2.00	19.84	19.10
Wheat Compound	Baltimore					1.45		12.95	12.00	4.26	5.00	13.34	12.65
Wheat Compound	Baltimore					1.70		12.50	12.00	4.66	5.00	12.97	12.65
Wheat Compound	Baltimore					2.15		12.05	12.00	5.36	5.00	13.32	12.65
Plant Products Company, Baltimore, Md.													
PlanTabbs	Baltimore			13.35	13.37			*19.00	*15.00	26.08	20.00	93.65	86.17
PlanTabbs	Westminster			10.62	13.37			*15.20	*15.00	20.00	20.00	73.91	86.17
PlanTabbs	Baltimore			13.35	13.37			*19.00	*15.00	26.16	20.00	93.72	86.17
Ramsburg Fertilizer Co., Inc., Frederick, Md.													
Ammoniated Bone Phosphate	Lewiston	.61	.85	.99	1.00	1.80		13.60	10.00	1.38	2.00	15.42	13.20
Excelsior Plant Food	Frederick	1.16	1.65	2.00	2.00	3.50		11.75	12.00	2.36	2.00	19.77	19.10
Excelsior Plant Food	Frederick	1.15	1.65	1.83	2.00	3.45		11.80	12.00	2.04	2.00	18.75	19.10
Excelsior Plant Food	Frederick	1.16	1.65	1.86	2.00	3.05		11.95	12.00	2.24	2.00	19.10	19.10
Old Virginia Compound	Frederick	.82	.60	1.09	1.00	.70		10.50	10.00	4.12	4.00	15.87	14.90
Super Phosphate	Middletown					1.95		16.65	16.00			11.95	11.20
Rasin-Monumental Company, Baltimore, Md.													
Capital Grain and Clover Comp.	Baltimore	1.78	.78	1.98	2.00	.60		12.10	12.00	2.36	2.00	19.48	19.10
F. S. Royster Guano Co., Baltimore, Md.													
Acid Phosphate	Ellicott City					1.15		16.35	16.00			11.62	11.20
Cuckoo Guano	Ellicott City	.62	.66	1.01	1.00	.90		8.30	8.00	1.16	1.00	11.49	10.95
Fine Ground Bone Meal	Baltimore			3.77	3.00			*28.00	*22.90			33.77	27.24
Genuine German Kainit	Baltimore									13.16	12.40		
Genuine German Kainit	Baltimore									12.48	12.40		
Muriate of Potash	Baltimore									53.40	48.00		
Phosphate and Potash	Baltimore					.90		12.00	12.00	5.36	5.00	13.10	12.65
Rational Guano	Baltimore	.60	.66	1.01	1.00	1.45		8.05	8.00	4.12	4.00	13.91	13.50
Rational Guano	Ellicott City	.55	.66	.99	1.00	.80		8.00	8.00	4.12	4.00	13.68	13.50
Rustic Guano	Ellicott City	2.08	2.00	3.00	3.00	.95		11.95	12.00	3.04	3.00	24.59	24.45

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
Scott Fertilizer Company, Elkton, Md.													
Potato and Truck Special, 2-8-5	Rising Sun	1.62	1.00	2.10	2.00	1.55	------	8.25	8.00	5.32	5.00	$19.98	$18.85
Pure Ground Raw Bone	Elkton	-----	-----	5.98	4.50	-----	------	*21.40	*21.00	-----	-----	39.75	32.85
Sol. Phosphate and Potash, 0-12-5	Elkton	-----	-----	-----	-----	1.05	------	12.75	12.00	5.24	5.00	13.54	12.65
Special Grain Grower, ½-8-4	Elkton	-----	-----	.70	.50	1.10	------	8.10	8.00	4.08	4.00	12.46	11.25
Sure Growth Superphosphate, 2-8-3	Baltimore	1.41	1.00	1.84	2.00	.70	------	8.10	8.00	3.36	3.00	16.92	17.15
Tip Top Soluble Phosphate, 0-16-0	Rising Sun	-----	-----	-----	-----	1.30	------	17.00	16.00	-----	-----	12.10	11.20
Tip Top Soluble Phosphate, 0-16-0	Baltimore	-----	-----	-----	-----	1.20	------	16.00	16.00	-----	-----	11.38	11.20
R. H. Slingluff Fertilizer Co., Baltimore, Md.													
Harvest Queen	Baltimore	.52	.60	.95	1.00	.70	------	9.20	9.00	3.00	3.00	13.38	13.35
Wheat and Grass Mixture	Baltimore	1.06	.60	1.54	2.00	.45	------	10.05	10.00	4.00	4.00	17.44	19.40
Superior Guano Company, Baltimore, Md.													
Acid Phosphate	Baltimore	-----	-----	-----	-----	2.03	------	15.32	16.00	-----	-----	11.02	11.20
Acid Phosphate	Baltimore	-----	-----	-----	-----	.85	------	16.35	16.00	-----	-----	11.58	11.20
M B W, 1-8-4	Secretary	.61	.31	.99	1.00	.75	------	8.45	8.00	4.04	4.00	13.92	13.50
M B W, 1-8-4	Baltimore	.53	.31	.91	1.00	.45	------	8.45	8.00	4.08	4.00	13.56	13.50
M B W, 1-9-3	Baltimore	.60	.31	.99	1.00	.60	------	9.10	9.00	3.16	3.00	13.61	13.35
M B W, 2-8-5	Baltimore	1.70	.60	2.01	2.00	.80	------	8.90	8.00	5.00	5.00	19.65	18.85
M B W, 2-8-5	Baltimore	1.52	.60	1.91	2.00	.95	------	8.35	8.00	5.04	5.00	18.87	18.85
Phosphate and Potash	Baltimore	-----	-----	-----	-----	.85	------	10.65	10.00	4.30	2.00	11.25	8.70
Phosphate and Potash	Baltimore	-----	-----	-----	-----	1.20	------	12.00	12.00	4.56	5.00	12.46	12.65
Phosphate and Potash	Baltimore	-----	-----	-----	-----	.90	------	12.30	12.00	5.00	5.00	13.00	12.65
Phosphate and Potash	Baltimore	-----	-----	-----	-----	1.00	------	12.30	12.00	5.00	5.00	13.01	12.65
Wheat and Grass	Baltimore	-----	-----	-----	-----	1.00	------	10.10	10.00	3.24	3.00	9.97	9.55
Wheat and Grass	Baltimore	-----	-----	-----	-----	1.15	------	10.45	10.00	3.00	3.00	10.04	9.55

Swift and Company, Baltimore, Md.														
Acid Phosphate, H. G. Fertilizer	Baltimore					.50		16.00	16.00			11.28	11.20
Acid Phosphate, H. G. Fertilizer	Baltimore					.75		16.35	16.00			11.56	11.20
Acid Phosphate, H. G. Fertilizer	Baltimore					.70		16.10	16.00			11.38	11.20
Florists' Special Tankage	Baltimore			5.87	6.00			*16.20	*12.00			36.14	34.20
Golden Grain Grower	Baltimore	1.71	1.00	2.14	2.00	.50		8.30	8.00	5.24	5.00	19.97	18.85
Golden Grain Grower	Baltimore	1.53	1.00	1.96	2.00	.80		8.10	8.00	5.24	5.00	19.06	18.85
Muriate of Potash	Baltimore									47.40	50.00		
Raw Bone Meal Fertilizer	Baltimore			4.87	4.50			*21.80	*23.00			35.00	34.05
Red Steer	Baltimore	.72	.65	1.01	1.00	.65		9.05	9.00	4.36	4.00	14.70	14.20
Red Steer	Baltimore	.82	.65	1.02	1.00	.25		9.25	9.00	4.00	4.00	14.51	14.20
Red Steer	Baltimore	1.61	1.00	2.00	2.00	.70		8.00	8.00	2.16	2.00	16.55	16.30
Red Steer	Baltimore	1.43	1.00	1.84	2.00	.80		8.15	8.00	2.16	2.00	15.95	16.30
Special H. G. Phosphate and Potash	Baltimore					.35		12.15	12.00	5.36	5.00	13.12	12.65
Special H. G. Phosphate and Potash	Baltimore					.55		12.45	12.00	5.08	5.00	13.12	12.65
Special H. G. Phosphate and Potash	Baltimore					.45		12.25	12.00	5.36	5.00	13.21	12.65
Special H. G. Phosphate and Potash	Baltimore					.70		12.40	12.00	5.08	5.00	13.11	12.65
Special Wheat Grower	Baltimore	.75	.65	1.01	1.00	.35		8.05	8.00	4.20	4.00	13.81	13.50
Special Wheat Grower	Baltimore	.77	.65	1.01	1.00	.20		7.95	8.00	4.04	4.00	13.58	13.50
Special Wheat Grower	Baltimore	.75	.65	1.01	1.00	.55		9.75	8.00	4.16	4.00	15.00	13.50
Special Wheat Grower	Baltimore	.68	.65	.92	1.00	.45		7.95	8.00	4.32	4.00	13.45	13.50
Tankage	Baltimore			8.54	9.00								
Thomas and Company, Gaithersburg, Md.													
Alkaline Bone	Gaithersburg					.35		14.70	12.00	3.96	5.00	13.71	12.65
Harvest Queen	Frederick			.78	1.25	1.05		11.60	10.00	2.12	2.00	13.59	14.33
Wm. B. Tilghman Co., Inc., Salisbury, Md.													
Acid Phosphate	Salisbury					1.55		16.15	16.00			11.54	11.20
Bone Tankage Mixture	Salisbury	1.99	1.00	2.27	2.00	2.48		11.82	12.00	4.36	4.00	22.57	20.80
H. G. Phosphate and Potash Mixt.	Salisbury					1.90		13.50	12.00	6.08	6.00	14.91	13.50
H. G. Potash Mixture	Salisbury	1.46	1.00	2.18	2.00	2.00		8.30	8.00	10.32	10.00	24.69	23.10
Mixture "B"	Salisbury	3.42	2.25	4.00	4.00	3.20		8.30	8.00	4.20	4.00	27.86	27.00
"S P" Mixture	Salisbury	2.22	1.84	3.07	3.00	3.35		8.25	8.00	8.00	8.00	26.90	25.90
Special Fertilizer, 4-8-8	Salisbury	4.29	2.25	4.73	4.00	2.13		7.87	8.00	8.24	8.00	34.12	30.40
Special Fertilizer, 2-8-5	Salisbury	1.88	1.00	2.15	2.00	3.10		8.90	9.00	5.36	5.00	20.94	18.85
Standard Fish Mixture	Salisbury	1.97	1.00	2.52	2.00	2.30		10.00	10.00	2.94	2.00	21.19	17.70

* Total Phosphoric Acid.

Name and Address of Manufacturer and Name of Fertilizer	Place of Sampling	H_2O. SOL. AMMONIA		NITROGEN Calculated as AMMONIA		PHOSPHORIC ACID				POTASH K_2O.		Comparative Value Per Ton Found	Comparative Value Per Ton Guaranteed
						Insoluble		Available					
		Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	Found	Guaranteed		
F. W. Tunnell and Co., Inc., Phila	**delphia, Pa.**												
Fish Manure with Potash	Colora	1.23	.50	2.03	2.00	1.43	-----	9.07	10.00	7.66	6.00	$22.21	$21.10
Potash Manure	Colora	-----	-----	-----	-----	.40	-----	10.50	10.00	8.00	8.00	14.21	13.80
Veribest Cereal Manure	Colora	.81	.75	2.06	2.00	1.80	-----	8.00	8.00	4.32	4.00	18.81	18.00
United States Guano Co., Baltimo	**re, Md.**												
Acid Phosphate	Baltimore	-----	-----	-----	-----	.60	-----	16.50	16.00	-----	-----	11.64	11.20
Acid Phosphate	Baltimore	-----	-----	-----	-----	1.00	-----	17.10	16.00	-----	-----	12.12	11.20
Mammoth Potato Grower	Baltimore	1.32	1.00	2.05	2.00	1.85	-----	8.55	8.00	8.64	10.00	22.84	23.10
Mammoth Truck Grower	Baltimore	1.35	.82	2.15	2.00	1.90	-----	8.50	8.00	5.00	5.00	20.17	18.85
Valliant Fertilizer Company, Geor	**getown, Del.**												
Beacon	Princess Anne	-----	-----	-----	-----	.50	-----	12.70	12.00	6.20	6.00	14.24	13.50
Famous	Princess Anne	.72	-----	1.06	1.00	1.25	-----	10.25	10.00	4.00	4.00	15.54	14.90
Ideal	Princess Anne	1.21	-----	2.17	2.00	5.35	-----	10.05	10.00	5.16	5.00	22.00	20.25
Keystone	Princess Anne	1.60	-----	2.18	2.00	1.85	-----	9.05	10.00	6.58	6.00	22.02	21.10
E. S. Valliant and Son, Centreville	**, Md.**												
Acid Phosphate	Centreville	-----	-----	-----	-----	.30	-----	17.80	16.00	-----	-----	12.51	11.20
Animal Bone Mixture	Centreville	.55	.50	1.06	1.00	2.30	-----	11.15	11.00	4.08	4.00	16.40	15.60
Big Three	Centreville	.73	.50	1.11	1.00	1.60	-----	10.20	9.00	3.58	3.00	15.42	13.35
Fall Keystone	Centreville	1.11	.50	2.05	2.00	4.15	-----	8.25	8.00	6.02	5.00	20.75	18.85
Grain Grower	Centreville	-----	-----	.65	.50	1.35	-----	9.05	8.00	2.88	2.00	11.92	9.55
Oriole	Centreville	-----	-----	.60	.50	.85	-----	9.95	9.00	4.88	4.00	13.95	11.95
Standard	Centreville	.55	.50	.77	1.00	.85	-----	10.55	9.00	4.16	4.00	14.53	14.20
12-5	Centreville	-----	-----	-----	-----	.70	-----	12.10	12.00	5.16	5.00	12.97	12.65

W. H. Valliant and Bro., Bellevue, Md.													
Fish, Lime and Potash	Bellevue	.53	1.00	2.00	2.00					5.24	5.00	13.45	13.25
Phosphate, 12-5	Bellevue					1.45		12.65	12.00	4.32	5.00	12.75	12.65
Virginia-Carolina Chem. Co., Baltimore, Md.													
Acid Phosphate	Baltimore					.50		16.70	16.00			11.77	11.20
Acid Phosphate	Baltimore					.70		16.10	16.00			11.38	11.20
Blue Ribbon Fertilizer	Baltimore	1.75	.78	2.01	2.00	.65		7.95	8.00	5.04	5.00	19.00	18.85
Electric Brand	Baltimore	.89	.49	1.06	1.00	.60		8.30	8.00	4.16	4.00	14.21	13.50
Fish, Bone and Potash	Baltimore	1.45	.96	2.00	2.00	.50		8.30	8.00	3.08	3.00	17.51	17.15
Fish, Bone and Potash	Baltimore	1.29	.96	1.84	2.00	.40		8.10	8.00	3.20	3.00	16.73	17.15
H. G. Potash Mixture	Baltimore					1.20		13.40	12.00	4.76	5.00	13.61	12.65
Pure Raw Bone	Baltimore			4.49	4.50			*22.10	*20.60			33.47	32.61
Rescue Brand	Baltimore	1.78	.96	2.00	2.00	.70		8.00	8.00	2.12	2.00	16.51	16.30
Roan Steer Guano No. 2	Baltimore	1.76	.78	2.03	2.00	.75		12.05	12.00	2.16	2.00	19.53	19.10
Special Potash Mixture	Baltimore					.95		9.95	10.00	4.58	4.00	11.00	10.40
Westminster Fertilizer Co., Westminster, Md.													
Leader	Westminster	.35	.49	.91	1.00	.55		10.85	10.00	3.50	3.00	14.76	14.05
Super-A	Westminster	.27		1.02	1.00	.90		10.50	10.00	2.24	2.00	13.98	13.20
Worcester Fertilizer Co., Snow Hill, Md.													
Acid Phosphate, 0-16-0	Snow Hill					.80		18.20	16.00			12.86	11.20
Correct Plant Food Mixture, 2-8-2	Snow Hill	1.41	.66	2.18	2.00	2.05		8.40	8.00	2.54	2.00	18.16	16.30
Correct Plant Food Mixture, 2-10-2	Snow Hill	1.51	.67	2.18	2.00	1.95		10.45	10.00	2.24	2.00	19.32	17.70
Correct Plant Food Mixture, 0-12-5	Snow Hill					.65		12.05	12.00	5.20	5.00	12.96	12.65
Correct Plant Food Mixture, 1-10-5	Snow Hill	.94	.33	1.29	1.00	1.55		9.35	10.00	5.36	5.00	17.15	15.75
R. B. Wyand, Chewsville, Md.													
Golden Harvest	Chewsville	1.26		2.15	2.00	.80		11.00	10.00	6.06	5.00	22.65	20.25
Grain Mixture	Chewsville	.51		1.09	1.00	2.55		8.35	8.00	4.52	3.00	14.98	12.65
Phosphate and Potash Mixture	Chewsville					.50		12.80	12.00	5.16	5.00	13.43	12.65

* Total Phosphoric Acid.